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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,600	02/28/2002	Yoshihiko Nishio	3094-38	7632

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EXAMINER

ZACHARIA, RAMSEY E

ART UNIT PAPER NUMBER

1773

DATE MAILED: 08/25/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n No.

10/070,600

Applicant(s)

NISHIO ET AL.

Examin r

Ramsey Zacharia

Art Unit

1773

— The MAILING DATE of this communicati n appears on the cover sheet with the correspondence address —

## Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disp sition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 3 is/are allowed.
- 6) ☒ Claim(s) 1 and 4-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 8-11 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a carrier film wherein the drawn polyester film has a thickness of 5-300  $\mu\text{m}$ , does not reasonably provide enablement for a carrier film wherein the drawn polyester film has a thickness above this range. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. According to page 7, lines 12-18 of the specification, it is not possible to make carrier films having the desired precision of thickness when the polyester film has a thickness of greater than 300  $\mu\text{m}$ .

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4-7, and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (U.S. Patent 5,139,878).

Kim et al. teach a multilayer film comprising a fluoropolymer layer and a thermoplastic layer (column 2, lines 45-51). Ethylene-tetrafluoroethylene copolymer is a suitable material for the fluoropolymer layer (column 2, lines 52-55). Polyethylene terephthalate is a preferred material for the thermoplastic layer (column 3, lines 37-41). The film may be formed by various lamination techniques (column 7, lines 50-65). In the embodiment of Example 1, the film comprises a second polyester layer, which reads on the further laminated polyester film of claim 13 (column 9, lines 22-25). In this embodiment, the fluoropolymer layer has a thickness of 16.5  $\mu\text{m}$ , the thermoplastic layer has a thickness of 35.1  $\mu\text{m}$ , and the film has a total thickness of 124  $\mu\text{m}$  (column 10, lines 3-20).

The tensile modulus of elasticity and the melting temperature are material properties. Since the Kim et al. uses the same material for their thermoplastic layer as is used in the supporting film of the instant invention (polyethylene terephthalate), the thermoplastic layer of Kim et al. should inherently possess a tensile modulus of elasticity and melting point that read on the instant claims.

5. Claims 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kloss, Jr. (U.S. Patent 4,857,400).

Kloss, Jr. teach a sheet comprising a polymeric release layer and a polymeric stabilizing layer (column 2, lines 35-43). The stabilizing layer is preferably biaxially oriented polyethylene terephthalate having a thickness of 0.5-5 mils, i.e. about 12 to 125  $\mu\text{m}$  (column 2, lines 62-66). The release layer may comprise polyvinylidene fluoride or polytetrafluoroethylene (i.e. fluororesins) and have a thickness of as low as 2.5  $\mu\text{m}$  (column 2, lines 58-61).

Although Kloss et al. is silent with respect to the difference between maximum and minimum thicknesses of the stabilizing layer, a biaxially oriented polyethylene terephthalate film having a thickness of about 12-125  $\mu\text{m}$  is the preferred material for the stabilizing layer.

According to the instant specification (see page 6, line 30-page 7, line 18), drawn (i.e. oriented) polyester films usually have a difference of 1-2  $\mu\text{m}$ . This is particularly true of polyethylene terephthalate films having a thickness of no more than 300  $\mu\text{m}$ . Therefore, since Kloss et al. uses an oriented polyethylene terephthalate film which has a thickness of less than 300  $\mu\text{m}$  as their stabilizing layer, the difference between maximum and minimum thicknesses of the stabilizing layer should meet the limitations of claims 8 and 9.

#### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kloss et al. (U.S. Patent 4,857,400) in view of Mouri et al. (U.S. Patent 5,533,452).

Kloss et al. meets all the limitations of claim 11, as outlined above, except for specifying that the polymeric release layer comprises a tetrafluoroethylene-ethylene copolymer. However, Kloss et al. do teach that the release layer may be a material that exhibits similar release properties to polytetrafluoroethylene (column 4, lines 26-30).

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Mouri et al. illustrate that polytetrafluoroethylene and tetrafluoroethylene-ethylene copolymer are known in the art to be equivalent materials for release films exhibiting low surface energy (column 9, lines 56-65).

Because these two polymers were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute tetrafluoroethylene-ethylene copolymer for polytetrafluoroethylene in the release layer of Kloss et al.

Therefore, the invention of claim 11 would have been obvious to one of ordinary skill in the art at the time the invention was made.

***Allowable Subject Matter***

8. Claims 2 and 3 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter.

Claim 2 is directed to a releasing laminated film comprises a supporting film having a tensile modulus of 980-6,860 N/mm<sup>2</sup> and a film comprising a fluororesin laminated on one side of the supporting film. The side of the supporting film opposite the film comprising a fluororesin has a 10-point averaged surface roughness of 3.0-8.0  $\mu\text{m}$  and a number of peaks of 200 to 400.

Kim et al. represents the closest prior art. However, Kim et al. do not teach or fairly suggest a multilayer film in which the side of the thermoplastic layer opposite the fluoropolymer layer has a 10-point averaged surface roughness of 3.0-8.0  $\mu\text{m}$  and a number of peaks of 200 to 400.

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***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (703) 305-0503.

The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for non after-final correspondences and (703) 872-9311 for after-final correspondences.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



**Ramsey Zacharia**  
**Primary Examiner**  
**Tech Center 1700**